

# **argus**

## **MACRO-KIT**

The Argus Macro-Kit has been designed for use with the Model C and C-2 Argus Camera for those serious camera workers who wish to get the most from their equipment.

The Macro-Kit opens for Argus Camera owners entirely new fields in philately, entomology, criminology, botany, dentistry, medicine, mineralogy, etc. Negatives made with Macro-Kit may be enlarged to many times the size of the original object, permitting close study of minute detail.

**INTERNATIONAL RESEARCH CORP.**  
Ann Arbor, Michigan, U.S.A.

**Front Cover**

## Setting up the Kit

Remove the lens from the camera and screw one of the extension tubes on in its place. Which tube to use will depend on the size of image desired. With the shorter tube, copy a fourth the size of the original can be made. With the longer one, copy half the size of the original can be made. With a combination of both tubes, copy three-fourths the size of the original can be made.

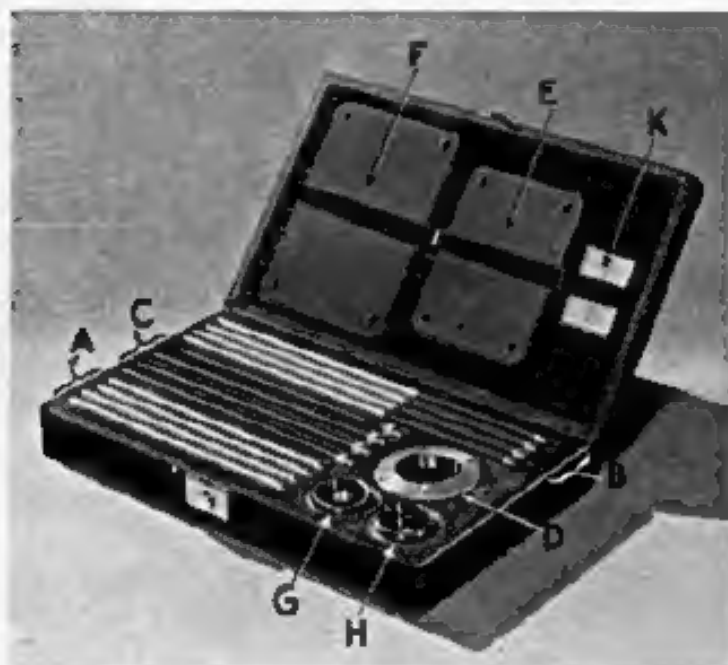


Figure 1

- |                        |                |
|------------------------|----------------|
| A—Short Extension Rods | F—Large Stage  |
| B—Long Extension Rods  | G—Short Tube   |
| C—Hollow Legs          | H—Long Tube    |
| D—Mounting Ring        | K—Ground Glass |
| E—Small Stage          |                |

Attach the mounting ring (D in fig. 1) to the extension tube, with the beveled side of the ring away from the camera. Use



**Figure 2**

the set screw on the ring to fasten it in place.

Screw the lens into the front of the extension tube, being sure that tube and lens are properly seated, then screw the hollow legs (C fig. 1) snugly into place in the mounting ring.

When using the short tube (G fig. 1) use the longer extension rods (B fig. 1). When using the longer tube (H fig. 1) or both tubes (G & H fig. 1), use the shorter extension rods (A fig. 1).



**Figure 3**

The solid extension rods must be pushed as far as possible into the hollow legs.

The camera should now appear as in fig. 2. In this position it may be stood on a book page, newspaper or document for copying purposes. The picture will be sharp if the lens is set at infinity. Of course it will be best to check the focus by inserting the ground glass (K fig. 1) in the film track, and ascertaining sharpness with the aid of a magnifying glass before inserting film in the camera, (See figure 4).

To hold the shutter open for checking focus it will be necessary to have an Argus Model C Cable Release.

If small objects such as coins, insects, biological specimens, etc. are to be photographed, one of the stages will have to be attached to the extension rods as in fig. 3. Note that the stage is fitted into the grooves in the extension rods. If the shorter extension rods are in use, attach



Figure 4

the smaller stage (E fig. 1). If both tubes (G and H) are used the object to be photographed must be  $1\frac{1}{2}$ " above the stage. If the longer extension rods are in use attach the larger stage (F fig. 1).

Note that each of the stages has a dark and a light side. This is to provide the proper background for the type of object being photographed. When dark objects are being photographed the light side should be toward the lens and when light objects are being photographed, the dark side should be toward the lens.

When photographing small specimens it is advisable to focus the object on the ground glass before inserting film in the camera. A reading glass will be of great assistance in this operation. Place the ground glass (K fig. 1) with the *frosted side down* on the film track in the camera. The glass is just the right size to fit properly. Examine the image with a reading glass while adjusting the focus by means of the focusing ring on the lens barrel. (See fig. 4). Always focus with the lens wide open (f:3.5) and make exposures with a smaller stop (f:8 or f:11).

### Lighting

Various types of lighting may be used in conjunction with the Argus Macro-Kit. One way of lighting the subject is by the use of two 60-watt lamps in reflectors at a  $45^\circ$  angle on opposite sides of the stage.

In order to eliminate some shadows or increase others, some workers prefer the use of one very weak light source, which may

be carried around the subject during the exposure. This is purely a means of securing effect to obtain proper contrast, and is not recommended to the beginner. The Macro-Kit can also be used in sunlight. Care should be taken to prevent the shadows of the Extension Rods from crossing the picture area.

### **Exposure**

In view of the fact that the types of subject matter and manner of artificial lighting vary to such a great extent, it is impossible to make any specific exposure recommendations for indoor work. It is best to standardize on one type of lighting and learn to use it by means of a series of experimental exposures.

As for outdoor work in sunlight, good exposures can be secured on Agfa Superpan 1/50 second at f:11. When exposing, always use the cable release to avoid jarring the camera or other parts of the set-up.

### **Film Suggestions**

When making copies of printed matter or documents, use slow film such as positive. Give a long exposure and develop in D-11. A contrasty negative yielding an easily readable print will be the result. If desired the negative may be projected directly for reading.

### **Filters**

When photographing with panchromatic film, Argus filters may be used in front of

the lens in the same manner as when taking ordinary photographs.

### **Important**

When removing camera lens, follow the directions furnished in your camera instruction book. The lens should be removed in a unit as described in the instructions.

### **Nature Photographs**

The Argus Macro-Kit may be used to obtain photographs of flowers, insects, etc. in their natural habitat. When taking pictures of this type, the Extension Rods are used as a guide to distance and framing. The stages are not used, of course, nor can focusing be done on the ground glass. Set the lens for infinity and use as small a stop as can reasonably be used on the type of subject being photographed.

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**Back Cover**